

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**Before the Board of Patent Appeals and Interferences**

Inventor: Frank Dumont  
Application No.: 10/521,491  
Filed: January 18, 2005  
Title: Video Apparatus  
Examiner: Nigar Chowdhury  
Art Unit: 2621

**AMENDED APPEAL BRIEF**

May It Please The Honorable Board:

Appellants filed an appeal brief on February 16, 2010 appealing the rejection of claims 1-5, 12-13, and 15-22 in the instant application. A notice of non-compliant appeal brief was mailed from the USPTO on March 11, 2010 – stating that the brief does not contain a statement of the status of all claims as the basis for the notice. Consequently, appellants submit the instant paper: an amended appeal brief complying with this requirement. No additional fee is believed to be due, however, if there is a fee or charge due appellants authorize the fees/charges to be charged to Deposit Account No. 07-0832.

Appellants do not request an oral hearing.

**I. REAL PARTY IN INTEREST**

The real party in interest of Application Serial No. 10/521,491 is the Assignee of record:

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**II. RELATED APPEALS AND INTERFERENCES**

There are currently no related appeals and interferences for this application.

**III. STATUS OF THE CLAIMS**

Claims 1-5, 12, 13 and 15-22 are rejected and the rejection of claims 1-5, 12, 13 and 15-22 is appealed. Claims 6-11, 14, and 23 have been cancelled.

**IV. STATUS OF AMENDMENTS**

All amendments were entered and are reflected in the claims included in Appendix I.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

Independent claim 1 provides a video apparatus. A digital decoder decompresses compressed digital data and generates a first digital stream (page 1, lines 22-23). A video source of a first analogue signal and a video encoder are included (page 1, lines 23-24). A first video decoder connectable to the video source generates a second digital stream based on the first analogue signal (page 1, lines 4-5). Mixing means coupled to the first video decoder and to the digital decoder are able to mix the second digital stream and the first digital stream into an output digital stream to the video encoder (page 1, lines 6-8). The first video decoder provides a synchronizing signal to the digital decoder (page 4, lines 18-22).

Dependent claim 2 includes all the features of claim 1, along with a feature where a digital encoder generates a third digital stream based on a second analogue signal (page 1, lines 30-31) and where the digital encoder is connectable to the digital decoder for transmitting said third digital stream to the digital decoder (page 1, lines 31-32).

Dependent claim 3 includes all the features of claim 2, along with a feature where the digital encoder includes a video decoder for digitising the second analogue signal (page 1, lines 33-34).

Dependent claim 4 includes all the features of claim 3, along with a feature where the digital encoder and the digital decoder are linked via a digital selector (page 1, lines 35-36).

Dependent claim 5 includes all the features of claim 4, along with a feature where the digital selector is connected to a medium interface (page 1, line 37).

Dependent claim 12 includes all the features of claim 2, along with a feature where the digital encoder and the digital decoder are linked via a digital selector (page 21, lines 35-36).

Dependent claim 13 includes all the features of claim 12, along with a feature where the digital selector is connected to a medium interface (page 1, line 37).

Independent claim 15 provides a video apparatus. A first video decoder generates a first digital stream based on a first analogue video signal (page 2, lines 1-3). A second video decoder generates a second digital stream based on a second analogue video signal (page 2, lines 3-4). A digital processing unit is at least connectable to the second video decoder and able to generate a third digital stream based on the second digital stream (page 2, lines 4-6). A mixing means is connected to the first video decoder and to the digital

processing unit for outputting to a video encoder an output digital stream generated from the first digital stream and the third digital stream (page 2, lines 6-8). The first video decoder provides a synchronizing signal to the digital decoder (page 4, lines 18-22).

Dependent claim 16 includes all the features of claim 15, along with a feature where the video encoder outputs an output analogue signal based on said output digital stream (page 2, lines 11-12).

Dependent claim 17 includes all the features of claim 16, along with a feature where the digital processing unit includes a medium interface (page 2, line 13).

Dependent claim 18 includes all the features of claim 17, along with a feature where the medium interface is connectable to the second video decoder for recording on said medium data based on said second digital stream (page 2, lines 14-15).

Dependent claim 19 includes all the features of claim 15, along with a feature where the digital processing unit includes a medium interface (page 2, line 13).

Dependent claim 20 includes all the features of claim 19, along with a feature where the medium interface is connectable to the second video decoder for recording on said medium data based on said second digital stream (page 2, lines 14-15).

Dependent claim 21 includes all the features of claim 17, along with a feature where the medium interface is connectable to the digital switch for outputting to said digital switch a digital stream based on data retrieved from said medium (page 2, lines 16-18).

Dependent claim 22 includes all the features of claim 19, along with a feature where the medium interface is connectable to the digital switch for outputting to said

digital switch a digital stream based on data retrieved from said medium (page 2, lines 16-18).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-5, 12, 13, and 15-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Watkins (US Patent No. 7,111,319) in view of Logan (US Patent No. 5,371,551) and further in view of Iwasaki (US Patent No. 6,154,604).

## **VII. ARGUMENT**

### **Overview of the Cited References**

Watkins describes an apparatus including an audio/video decoder and a storage device. The audio/video decoder may be configured to receive (i) one or more uncompressed audio signals and (ii) one or more compressed audio/video signals. The uncompressed audio signals may be tagged to the compressed audio/video signals and the one or more tagged compressed audio/video signals may be stored in the storage device and available for a playback relative to the tags. (See col. 1, lines 28-37)

Logan describes a broadcast recording and playback device employing a “circular buffer” which constantly records one or more incoming audio or video program signals and a microprocessor for accessing the memory to read a playback signal from the circular buffer to display programming material delayed from its receipt by a selectable delay interval. The circular buffer is implemented by a digital memory. A subsystem includes the combination of a semiconductor RAM memory and a disk memory operated under the control of a microprocessor such that incoming signals are constantly recorded as received while, at the same time, delayed signals are being read from the memory subsystem at a different memory location selected by a microprocessor to provide a user-selected time delay. A plurality of input signal processors provides one or more programming signals to

the memory subsystem in compressed digital form and a separate output signal processor converts the compressed digital information read from the memory into a form suitable for display. The audio/video buffer system operates under the control of a microprocessor which accepts commands from a remote command device or a connected host computer. (See col. 1, lines 35-68 and col. 2, lines 1-2)

Iwasaki describes a video signal processor including a decoder supplied with a playback signal formatted in accordance with the standards of National Television System Committee and producing a digital video signal with a vertical synchronous frequency and a horizontal synchronous frequency satisfying a standard of Phase Alternation by Line Color Television System. An encoder is connected to the decoder and produces the analog video signal with a color sub-carrier frequency satisfying another standard of the Phase Alternation by Line Color Television System. A signal generator supplies a clock signal and a color carrier signal regulating the horizontal synchronous frequency and the sub-carrier frequency to the relation expressed as  $f_{sc} = \{(1135/4) + (1/521)\}f_H$ , where  $f_{sc}$  is the color sub-carrier frequency,  $f_H$  is the horizontal synchronous frequency. A moving picture reproduced from the analog video signal is free from color difference due to a dot crawling interference. (See col. 3, lines 56-67 and col. 4, lines 1-21)

**Rejection of claims 1-5, 12, 13 and 15-22 under 35 U.S.C. 103(a)**

Reversal of the rejection of claims 1-5, 12, 13 and 15-22 under 35 U.S.C. § 103(a) as being unpatentable over Watkins (US Patent No. 7,111,319) in view of Logan (US Patent No. 5, 371,551) and further in view of Iwasaki (US Patent No. 6,154,604) is requested because the Examiner makes crucial misinterpretations of the references. The rejection erroneously states that claims 1-5, 12, 13 and 15-22 are obvious over Watkins in view of Logan and further in view of Iwasaki.

The failure of an asserted combination to teach or suggest each and every feature of a claim remains fatal to an obviousness rejection under 35 U.S.C. § 103. Section 2143.03 of the MPEP requires the “consideration” of every claim feature in an obviousness determination. To render a claim unpatentable, however, the Office must do more than merely “consider” each and every feature for this claim. Instead, the asserted combination of the patents must also teach or suggest *each and every claim feature*. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added) (to establish *prima facie* obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art). Indeed, as the Board of Patent Appeals and Interferences has recently confirmed, a proper obviousness determination requires that an Examiner make “a searching comparison of the claimed invention - *including all its limitations* - with the teaching of the prior art.” See *In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis in original). “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious” (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

#### CLAIMS 1-5, 12 AND 13

Independent claim 1 provides a video apparatus. A digital decoder decompresses compressed digital data and generates a first digital stream. A video source of a first analogue signal and a video encoder are included. A first video decoder connectable to the video source generates a second digital stream based on the first analogue signal. Mixing means coupled to the first video decoder and to the digital decoder are able to mix the second digital stream and the first digital stream into an output digital stream to the video encoder. The first video decoder provides a synchronizing signal to the digital decoder.

The Office Action concedes that Watkins fails to teach or suggest “a video source of a first analogue signal” and that “the first video decoder provides a synchronizing signal to the digital decoder” as recited in claim 1 of the present arrangement. However, the

Office Action asserts that Logan describes “a video source of a first analogue signal.” Applicant respectfully disagrees.

Logan describes a time delayed digital video system using concurrent recording and playback. Logan is related to an arrangement for monitoring programming as it is broadcast and for enabling the listener or viewer to pause, replay and fast-forward the broadcast programming. Logan, taken alone or in combination with Watkins, neither teaches nor suggests “a video source of a first analogue signal” as recited in claim 1 of the present arrangement. According to the Office Action, the tuner 138b in Figure 1 of Watkins would be replaced by the analog tuner of Logan which provides the analog signal. Applicant respectfully submits that this would produce a device requiring additional steps and costs to perform the function of the present arrangement. In Watkins, the input signal is provided from the tuner through a channel decoder and then to a demux 162 within a processor 102. By replacing the tuner of Watkins with the analog tuner of Logan, the first video decoder would require that the first video signal is converted from analogue to digital and the digitized signal then multiplexed prior to being provided to demux 162 of processor 102b to be demultiplexed. It is not possible to simply replace the tuner of Watkins with the analog tuner of Logan to achieve a system similar to the present arrangement without additional costs. Thus, Logan, taken alone or in combination with Watkins, neither teaches nor suggests “a video source of a first analogue signal” as recited in claim 1 of the present arrangement.

The Office Action further concedes that both Watkins and Logan fail to teach or suggest that the “video decoder provides a synchronizing signal to the digital decoder” as recited in claim 1 of the present arrangement. However, the Office Action asserts that Iwasaki describes the aforementioned feature. Applicant respectfully disagrees.

Iwasaki, taken alone or in combination with Watkins and Logan, neither teaches nor suggests that the “video decoder provides a synchronizing signal to the digital decoder” as recited in claim 1 of the present arrangement. Fig. 1 of Iwasaki shows a



synchronization signal generator 3d that generates a synchronization signal S2 provided to both MPEG decoder 3b and video encoder 3c. However, no video decoder is shown. Thus, applicant respectfully asserts that the Examiner lacks a basis for a “video decoder” that “provides a synchronizing signal to the digital decoder.” Iwasaki describes an MPEG decoder 3b, but this MPEG decoder also does not provide a synchronizing signal. Instead, Iwasaki shows a synchronizing signal generator that generates the synchronizing signal. The synchronizing signal is received from a synchronizing signal generator. Thus, Iwasaki, taken alone or in combination with Watkins and Logan, neither teaches nor suggests that the “video decoder provides a synchronizing signal to the digital decoder” as recited in claim 1 of the present arrangement.

As Watkins, Logan and Iwasaki neither teach nor suggest “a video source of a first analogue signal” or that “the video decoder provides a synchronizing signal to the digital decoder” as recited in claim 1 of the present arrangement, the combination of Watkins, Logan also does not teach or suggest these features. As previously stated, a prima facie obviousness rejection requires the Examiner to provide a combination of references that teach or suggest each and every claim feature. Since the Examiner has not done so here, a proper prima facie obviousness rejection was not established. Therefore, it is respectfully submitted that the rejection of claim 1 is overcome and should be reversed.

Claims 2-5, 12 and 13 are dependent on claim 1 and are patentable for the reasons set forth above regarding claim 1. Therefore, it is respectfully submitted that the rejection of claims 2-5, 12 and 13 is overcome and should be reversed.

#### CLAIMS 15-22

Independent claim 15 provides a video apparatus. A first video decoder generates a first digital stream based on a first analogue video signal. A second video decoder generates a second digital stream based on a second analogue video signal. A digital processing unit is at least connectable to the second video decoder and able to generate a third digital stream based on the second digital stream. A mixing means is connected to the first video decoder and to the digital processing unit for outputting to a video encoder

an output digital stream generated from the first digital stream and the third digital stream. The first video decoder provides a synchronizing signal to the digital decoder.

The Office Action concedes that Watkins fails to teach or suggest “a first video decoder generating a first digital stream based on a first analogue video signal” and that “the first video decoder provides a synchronizing signal to the digital decoder” as recited in claim 15 of the present arrangement. However, the Office Action asserts that Logan describes “a first video decoder generating a first digital stream based on a first analogue video signal.” Applicant respectfully disagrees.

Logan describes a time delayed digital video system using concurrent recording and playback. Logan is related to an arrangement for monitoring programming as it is broadcast and for enabling the listener or viewer to pause, replay and fast-forward the broadcast programming. Logan, taken alone or in combination with Watkins, neither teaches nor suggests “a first video decoder generating a first digital stream based on a first analogue video signal” as recited in claim 1 of the present arrangement. According to the Office Action, the tuner 138b in Figure 1 of Watkins would be replaced by the analog tuner of Logan which provides the analog signal. Applicant respectfully submits that this would produce a device requiring additional steps and costs to perform the function of the present arrangement. In Watkins, the input signal is provided from the tuner through a channel decoder and then to a demux 162 within a processor 102. By replacing the tuner of Watkins with the analog tuner of Logan, the first video decoder would require that the first video signal is converted from analogue to digital and the digitized signal then multiplexed prior to being provided to demux 162 of processor 102b to be demultiplexed. It is not possible to simply replace the tuner of Watkins with the analog tuner of Logan to achieve a system similar to the present arrangement without additional costs. Thus, Logan, taken alone or in combination with Watkins, neither teaches nor suggests “a first video decoder generating a first digital stream based on a first analogue video signal” as recited in claim 15 of the present arrangement.

The Office Action further concedes that both Watkins and Logan fail to teach or suggest that the “video decoder provides a synchronizing signal to the digital decoder” as recited in claim 15 of the present arrangement. However, the Office Action asserts that Iwasaki describes the aforementioned feature. Applicant respectfully disagrees.

Iwasaki, taken alone or in combination with Watkins and Logan, neither teaches nor suggests that the “video decoder provides a synchronizing signal to the digital decoder” as recited in claim 15 of the present arrangement. Fig. 1 of Iwasaki shows a synchronization signal generator 3d that generates a synchronization signal S2 provided to both MPEG decoder 3b and video encoder 3c. However, no video decoder is shown. Thus, applicant respectfully asserts that the Examiner lacks a basis for a “video decoder” that “provides a synchronizing signal to the digital decoder.” Iwasaki describes an MPEG decoder 3b, but this MPEG decoder also does not provide a synchronizing signal. Instead, Iwasaki shows a synchronizing signal generator that generates the synchronizing signal. The synchronizing signal is received from a synchronizing signal generator. Thus, Iwasaki, taken alone or in combination with Watkins and Logan, neither teaches nor suggests that the “video decoder provides a synchronizing signal to the digital decoder” as recited in claim 15 of the present arrangement.

As Watkins, Logan and Iwasaki neither teach nor suggest “a first video decoder generating a first digital stream based on a first analogue video signal” or that “the video decoder provides a synchronizing signal to the digital decoder” as recited in claim 1 of the present arrangement, the combination of Watkins, Logan also does not teach or suggest these features. As previously stated, a prima facie obviousness rejection requires the Examiner to provide a combination of references that teach or suggest each and every claim feature. Since the Examiner has not done so here, a proper prima facie obviousness rejection was not established. Therefore, it is respectfully submitted that the rejection of claim 15 is overcome and should be reversed.

Claims 16-22 are dependent on claim 15 and are considered patentable for the reasons set forth above regarding claim 15. Therefore, it is respectfully submitted that the rejection of claims 16-22 is overcome and should be reversed.

### **VIII CONCLUSION**

The combination of Watkins, Logan and Iwasaki neither teaches nor suggests “a video source of a first analogue signal” or that “the video decoder provides a synchronizing signal to the digital decoder” as recited in claim 1 of the present arrangement.

The combination of Watkins, Logan and Iwasaki also neither teaches nor suggests “a first video decoder generating a first digital stream based on a first analogue video signal” or that “the video decoder provides a synchronizing signal to the digital decoder” as recited in claim 15 of the present arrangement.

Claims 2-5, 12, 13 and 16-22 are dependent on claims 1 and 5 and are considered patentable over the combination of Watkins, Logan and Iwasaki as well.

Accordingly it is respectfully submitted that the rejection of claims 1-5, 12, 13 and 15-22 should be reversed.

Respectfully submitted,  
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## **APPENDIX I - APPEALED CLAIMS**

1. (Previously Presented) Video apparatus comprising:

- a digital decoder for decompressing compressed digital data and for generating a first digital stream;
- a video source of a first analogue signal;
- a video encoder;
- a first video decoder connectable to the video source for generating a second digital stream based on the first analogue signal;
- mixing means coupled to the first video decoder and to the digital decoder able to mix the second digital stream and the first digital stream into an output digital stream to the video encoder, wherein  
the first video decoder provides a synchronizing signal to the digital decoder.

2. (Previously Presented) Video apparatus according to claim 1, wherein a digital encoder generates a third digital stream based on a second analogue signal and wherein the digital encoder is connectable to the digital decoder for transmitting said third digital stream to the digital decoder;

3. (Previously Presented) Video apparatus according to claim 2, wherein the digital encoder includes a video decoder for digitising the second analogue signal.

4. (Previously Presented) Video apparatus according to claim 3, wherein the digital encoder and the digital decoder are linked via a digital selector.

5. (Previously Presented) Video apparatus according to claim 4, wherein the digital selector is connected to a medium interface.

Claims 6-11 (Cancelled)

12. (Previously Presented) Video apparatus according to claim 2, wherein the digital encoder and the digital decoder are linked via a digital selector.

13. (Previously Presented) Video apparatus according to claim 12, wherein the digital selector is connected to a medium interface.

14. (Cancelled)

15. (Previously Presented) Video apparatus comprising:

- a first video decoder generating a first digital stream based on a first analogue video signal;
- a second video decoder generating a second digital stream based on a second analogue video signal;
- a digital processing unit at least connectable to the second video decoder and able to generate a third digital stream based on the second digital stream;
- a mixing means connected to the first video decoder and to the digital processing unit for outputting to a video encoder an output digital stream generated from the first digital stream and the third digital stream, wherein the first video decoder provides a synchronizing signal to the digital decoder.

16. (Previously Presented) Video apparatus according to claim 15, wherein the video encoder outputs an output analogue signal based on said output digital stream.

17. (Previously Presented) Video apparatus according to claim 16, wherein the digital processing unit includes a medium interface.

18. (Previously Presented) Video apparatus according to claim 17, wherein the medium interface is connectable to the second video decoder for recording on said medium data based on said second digital stream.

19. (Previously Presented) Video apparatus according to claim 15, wherein the digital processing unit includes a medium interface.

20. (Previously Presented) Video apparatus according to claim 19, wherein the medium interface is connectable to the second video decoder for recording on said medium data based on said second digital stream.

21. (Previously Presented) Video apparatus according to claim 17, wherein the medium interface is connectable to the digital switch for outputting to said digital switch a digital stream based on data retrieved from said medium.

22. (Previously Presented) Video apparatus according to claim 19, wherein the medium interface is connectable to the digital switch for outputting to said digital switch a digital stream based on data retrieved from said medium.

23. (Cancelled)

**APPENDIX II - EVIDENCE**

Applicant does not rely on any additional evidence other than the arguments submitted hereinabove.



**APPENDIX III - RELATED PROCEEDINGS**

There are currently no related appeals and interferences for this application.

**APPENDIX IV - TABLE OF CASES**

1. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)
2. *In re Wada and Murphy*, Appeal 2007-3733
3. *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995)
4. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)

**Other Authority**

1. 35 U.S.C. § 103 Conditions for patentability; non-obvious subject matter – Patent Laws
2. MPEP §2143.03 All Claim Limitations Must Be Considered – 2100 Patentability

**APPENDIX V - LIST OF REFERENCES**

<b><u>U.S. Pub. No.</u></b>	<b><u>Pub. Date</u></b>	<b><u>102(e) Date</u></b>	<b><u>Inventors</u></b>
7,111,319	September 19, 2006		Watkins
5,371,551	December 6, 1994		Logan
6,154,604	November 28, 2000		Iwasaki

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